

moot the rejections of pending claims 1, 4-6, 8, 9, 11-13, 15, 18, 19, and 21. The dependency of claim 12 has been changed from canceled claim 7 to claim 1.

In particular, claims 1, 13, and 18 have been amended to clarify that the present invention is not a diesel hammer, but is instead a drop hammer. In particular, claims 1, 13, and 18 have all been amended to specify that the ram member is lifted from a lower position to an upper position during each cycle. Diesel hammers and drop hammers both employ the force generated by a falling ram member to drive a pile. However, these pile driving systems differ in the manner in which the ram member is raised after each impact. With a diesel hammer, the ram member is lifted once to initiate the driving process, and then raised after each impact by the expanding gasses resulting from the ignition of compressed fuel. In contrast, the ram member of a drop hammer is mechanically raised by a lifting system after each impact.

In contrast, the Kurylko patent describes a generally conventional diesel hammer that, after the first impact, uses the force of expanding gasses to raise the ram member after each successive impact until fuel is no longer injected into the compression chamber below the ram member. The Applicant thus respectfully submits that amended claims 1, 13, and 18 distinguish the drop hammer of the present invention over diesel hammer of Kurylko by specifying that: (a) the ram member is lifted after each impact, (b) ambient air passes through the vent port, and (c) compression of the ambient air within the preload chamber portion applies a preload force on the helmet member.

The advantage of the present invention is that, in situations where use of a diesel hammer is not appropriate, a drop hammer embodying the principles of the present invention may be used that achieves a decay pattern of stress induced in the pile similar to that of a diesel hammer.

The Applicant respectfully submits that present invention as recited in claims 1, 4-6, 8, 9, 11-13, 15, 18, 19, and 21 is structurally distinguishable over the Kurylko reference and that the structural difference provide a significant operational advantage over either prior art diesel hammers such as Kurylko or prior art drop hammers.

Given the foregoing, the Applicant respectfully submits that currently pending claims 1, 4-6, 8, 9, 11-13, 15, 18, 19, and 21 are in condition for allowance, and such allowance is respectfully requested.

Submitted herewith is a document (entitled Exhibit A - Listing of All Claims and Amendments (04-05-2005)) containing a listing of the claims as currently presented. The attached Listing contains the text of each pending claim, along with any amendments made hereby (illustrated using strikethrough and underlining) and the status of each pending claim.

If there is any matter which could be expedited by consultation with the Applicant's attorney, such would be welcome. The Applicant's attorney can normally be reached at the telephone number below.

Signed at Bellingham, County of Whatcom, State of Washington this 7th day of April, 2005.

Respectfully submitted,

By Michael R. Schacht
Michael R. Schacht, Reg. No. 33,550
2801 Meridian Street, Suite 202
Bellingham, WA 98225-2400
phone: (360) 647-0400
fax: (360) 647-0412
Customer No. 30662

CERTIFICATE OF MAILING
37 C.F.R. §1.8

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service as first class mail in an envelope addressed to Mail Stop Non-Fee Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the date shown below.

Signature: Susie Hubka

Print Name: Susie Hubka

Date: April 7, 2005